

## 5 Times Table Pixel Puzzle: seafaring: solution

The 5 times table gives a diagonal pattern as shown.

1	2	3	4		6	7	8	9	
11	12	13	14		16	17	18	19	
21	22	23	24		26	27	28	29	
31	32	33	34		36	37	38	39	
41	42	43	44		46	47	48	49	
51	52	53	54		56	57	58	59	
61	62	63	64		66	67	68	69	
71	72	73	74		76	77	78	79	
81	82	83	84		86	87	88	89	
91	92	93	94		96	97	98	99	
101	102	103	104		106	107	108	109	
111	112	113	114		116	117	118	119	

$1 \times 5 = \square \square 5$

$5 \times 1 = \square \square 5$

$2 \times 5 = \square \square 0$

$5 \times 2 = \square \square 0$

$3 \times 5 = \square \square 5$

$5 \times 3 = \square \square 5$

$4 \times 5 = \square \square 0$

$5 \times 4 = \square \square 0$

$5 \times 5 = \square \square 5$

$5 \times 5 = \square \square 5$

$6 \times 5 = \square \square 0$

$5 \times 6 = \square \square 0$

$7 \times 5 = \square \square 5$

$5 \times 7 = \square \square 5$

$8 \times 5 = \square \square 0$

$5 \times 8 = \square \square 0$

$9 \times 5 = \square \square 5$

$5 \times 9 = \square \square 5$

$10 \times 5 = \square \square 0$

$5 \times 10 = \square \square 0$

$11 \times 5 = \square \square 5$

$5 \times 11 = \square \square 5$

$12 \times 5 = \square \square 0$

$5 \times 12 = \square \square 0$

One pattern to spot is that numbers in the 5 times table ALWAYS end in 0 or 5

eg

35 is a multiple of 5 and ends in 5

20 is a multiple of 5 and ends in 0

In fact EVERY number that ends in 0 or 5 is in the 5 times table if you go far enough. We can see that because everything in the 0 and 5 columns of the times table grid are coloured in.

That means that a way to complete the big picture (an algorithm) is just to look for numbers ending in 5 or 0 and colour those in, leaving all other numbers. That is probably easier and faster than looking to see if the numbers are in the 5 times table.

22	26	101	2	21	23	69	21	7	1	2	3	4	6	8	9	11	12	13	14		
61	17	18	19	21	22	23	24	26			24	68	12	12	13	16	19	18	16		
58	18	92	93	94	91								23	82	61	21	28	111	71		
76	6	2	12	12	16								11	12	13	16	12	19	1		
72	19	82	19	17	16	28	78	61				33	12	1	8	1	2	1	3	1	
9	18	14	11	31	32	71	21	2				81	71	12	21	11	18	16	2	1	
79		9	18	26	92	79	4	6				52	21	1	3	6	1	2		6	
1			2	3	4	6	7	8				1	3	8	6	7	1			2	
1	12			13	14	16	17	18				2	1	2	3	4			8	9	
21	22	23			24	21	26	81				1	1	1	8			4	6	1	
1	2	3	4															13	16	16	2
6	7	8	9	11	12	13	4	1				57	6	12	21	1	2	3	4	64	
1	2	3	4	2	6	7	8	9	11	17	8	9	11	12	13	14	16	17	18		

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Now create your own 5 times table pixel puzzle.

This activity is inspired by the wonderful Multiplication Tables Colouring Book series by Hilary McElderry, Tarquin Books (<https://www.tarquingroup.com/>). Buy them for more multiplication colour-by-number puzzles.